

# SUPREME UPS

## FOR DATA CENTERS & COMPUTER ROOMS



### EXCEPTIONAL PERFORMANCE

- Unity Power Factor and Low Input Distortion
- ECO Mode for energy saving
- DSP-controlled Technology
- Superior Overload Capability
- Efficiency up to 98%
- Low Input Current THD, (THDi) $\leq$ 2%

### HIGH POWER DENSITY

- Online Double Conversion Three Phase UPS
- Output Power Factor at 0.9
- Parallel Redundancy up to 4 Units
- Up to 500KVA of power





*Recommended By Most Industry Users*



**SUPREME UPS** is a three-phase four-wire online uninterruptible power supply which provides reliable and stable sine-wave power to your electronics equipment. It is designed with the latest DSP digital control technology with an output power factor of 0.9. The efficiency of the entire device can reach up to 95.5%. With its outstanding features, the UPS not only provides safe, reliable and uninterrupted power to your sensitive equipment at all times, but also produces better power efficiency at less cost.



#### **Smart Charge Current Adjustment**

SUPREME UPS comes with advanced three-stage charging method. The first stage consists of constant current charging where the UPS performs fast charging to reach 90% of the electricity. The second phase consists of pulse charging where the battery will be brought to fully charged state. The third stage is to maintain constant pressure to ensure no loss of power. This method enhances and extends the life of the battery.



#### **Automatic Fan Speed Control**

The speed of the fan varies depending on the heat-sink temperature and the load percentage. A typical UPS system equipped with fixed speed fans operate at a constant high speed thereby consuming the maximum amount of power. In cases where the load is not maximized, the required air circulation within the UPS is less and a lower air circulation rate can be provided at a much lower fan speed, thus a considerable amount of fan electrical energy can be conserved.



#### **LCD Control Panel**

Equipped with a LCD display, you can easily control and review the UPS status and operational parameters, such as input/output voltage, frequency & load level, battery level and remaining time, ambient temperature and more.



- ✓ Parallel up to max. 4 units
- ✓ Load Sharing
- ✓ More than 1 Unit can be set at Redundancy

### N+X Parallel Redundancy

N+X, also called parallel redundancy, is a safeguard to ensure that an uninterruptible power supply (UPS) system is always available.

N+X stands for the *number* of UPS modules that are required to handle an adequate supply of power for essential connected systems, plus one or more modules.

If an enterprise data center uses a single large UPS, and if that module fails, systems will be disrupted. Using an N+X scheme, multiple small UPS modules and batteries are integrated together. During normal operations, the load is shared equally across all modules, which behave as if they were a single large UPS device.

If a single module fails or needs to be taken offline for service, the UPS system will still be able to provide an adequate supply of power because it's already been configured with one or more extra module. For example, when using a N+1 redundancy, the UPS modules should be sized so that the total anticipated load can be carried by three modules. The benefits of N+1 diminish after that point.



### ECO (Energy Saving) Mode

ECO mode is a method of operating the UPS at reduced power protection in order to obtain improved electrical efficiency and save energy. The benefit of ECO mode is that the efficiency of the bypass path is typically between 98.0% and 99%, compared to the base UPS efficiency of 94% to 97%. This means there is a pickup in UPS efficiency of between 2-5% in UPS efficiency when ECO-mode is used. ECO mode represents a potential way to save energy in data centers and other UPS applications.

Data Center operators can expect to see savings on the order of 2-3% in total energy if ECO mode is enabled. Higher percent savings are possible if the data center is operated at very light electrical loads. The energy savings associated with ECO-mode are getting smaller as newer generation UPS systems improve in efficiency.

### Versatile Communication Interfaces

Besides having the usual RS232 interface, the UPS can be monitored and controlled via RS485, Dry Contact or Ethernet (SNMP) card. This unique solution allows you to conveniently monitor and manage your UPS with a standard Web browser, while simultaneously providing graceful shutdown for multiple computer systems over the network.



## PowerHub Supreme UPS Series

### MODELS

MODEL NAME	Supreme 10K-TT (Std/Ext) 15K-TT (Std/Ext)	Supreme 20K-TT (Std/Ext) 30K-TT (Std/Ext)	Supreme 40K-TT (Ext) 50K-TT (Ext) 60K-TT (Ext) 80K-TT (Ext)	Supreme 100K-TT (Ext) 120K-TT (Ext) 160K-TT (Ext)	Supreme 200K-TT (Ext) 300K-TT (Ext)	Supreme 400K-TT (Ext) 500K-TT (Ext)
Rating (KVA/KW)	10KVA/9KW 15KVA/13.5KW	20KVA/18KW 30KVA/27KW	40KW/36KW 50KVA/45KW 60KVA/54KW 80KVA/72KW	100KVA/90KW 120KVA/108KW 160KVA/144KW	200KVA/180KW 300KVA/270KW	400KVA/360KW 500KVA/450KW
Dimension WxDxH (mm)	600x780x1200			600x850x1600	600x850x2000	1200x850x1200
Weight (kg)	598 to 600 (Std) 129 to 131 (Ext)	602 (Std) 133 (Ext)	170 to 199	345 to 379	380 to 575	900 to 1005

### BATTERY

Battery Voltage (VDC)	216V (Std) ±192/204/216/228/240 (Ext)					
BATT Type / Number	12V/38Ah x 36pcs (Std)	NA				
Charger Current (A)	5.7 (Std) 6 (Ext)	12 to 18	30 to 40	50 to 80	100 to 130	

Due to ongoing product improvements, specifications are subject to change without notice.

### TECHNICAL SPECIFICATIONS

#### Electrical Input

Input Voltage: 380/400/415VAC

Frequency Range : 40~70Hz

#### Electrical Output

Output Voltage: 380/400/415VAC

Power Factor: 0.9

Crest Factor: 3:1

Efficiency: 95%

Transfer Time: 0ms (Mains – Battery)  
0ms (Mains – Bypass)

Overload: <110% - 60mins  
<125% - 10mins  
<150% - 1min

THD: <2% (linear load), <5% (non linear load)

#### Environmental

Operating Temperature: 0 ~ 40°C

Relative Humidity: 0 ~ 90%, No condensation

Noise: <55dB (From 10KVA to 80KA)

<70dB (From 100KVA to 200KVA)

<73dB (From 300KVA to 500KVA)

Altitude: <1500m

#### Communication Interface

RS232, RS485, Dry Contact, Intelligent slot x 2  
(SNMP card, Relay card)

#### Standards

Safety: IEC/EN62040-1, IEC/EN60950-1

EMC: IEC/EN62040-2, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8